

OBES Project on Electron Correlation

Recent Highlights – January 2011



- UO_2 is the most widely used nuclear fuel and exhibits strong electron correlation effects.
- We are investigating UO_2 with a powerful array of spectroscopic techniques, such as X-ray absorption (XAS), X-ray emission (XES), Bremstrahlung Isochromat Spectroscopy (BIS), Resonant Inverse Photoelectron Spectroscopy (RIPES) and Photoelectron Spectroscopy, including XPS and the spin resolving variant called Fano Spectroscopy.

New Publications

1. J.G. Tobin, S.W. Yu, B.W. Chung, G.D. Waddill, L. Duda and J. Nordgren, "Observation of Strong Resonant Behavior in the Inverse Photoelectron Spectroscopy of Ce Oxide," *Phys. Rev.* **83**, 085104 (2011).
2. S.-W. Yu and J.G. Tobin, "Confirmation of Sample Quality: X-ray and Ultraviolet Photoelectron Spectroscopy of Uranium Dioxide," *J. Vac. Sci. Tech. A* **29** 021008 (2011).

